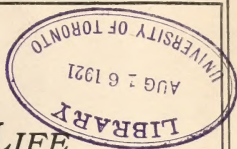


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Metropolitan Life Insurance Company, New York



LENGTHENING LIFE

Through Insurance Health Work

A Study of the

*Trends of Mortality
Among Policyholders*

in the

Metropolitan Life Insurance Company

and in

United States Registration Area

1911 to 1919

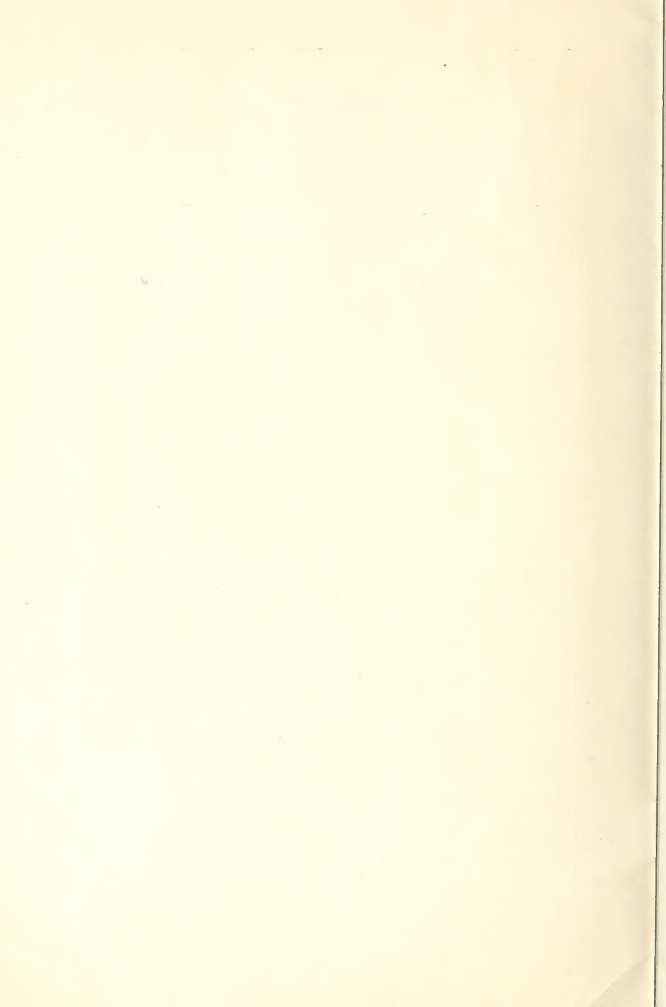


METROPOLITAN LIFE INSURANCE COMPANY

New York

1921

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Foreword.

In 1909, the Metropolitan Life Insurance Company began a systematic campaign to lengthen the lives of its industrial policy-holders. The mortality in this group has, in general, been higher than in the general population. This has been due to the economic and industrial conditions under which industrial policy-holders live and work.

The Company's campaign to prolong life has followed four main lines:

1. Education of policy-holders in personal hygiene by distribution of specially prepared booklets and pamphlets to teach them the fundamentals of health and the prevention of disease. The total distribution to January 1, 1921, was 213,522,204 pamphlets.
2. Organization of a Visiting Nurse Service to care for policy-holders when ill, and incidentally to teach sanitation and hygiene. To January 1, 1921, a total of 11,830,684 visits were made.
3. Development of an Industrial Service Bureau to cooperate with employers of labor in securing better working and living conditions for their work people.
4. Co-operation with Health and other Officials of States and Cities to secure adequate legislation and appropriations for the conduct of constructive and progressive health work.

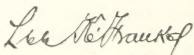
Incidentally, the Company has prepared exhibits, made sickness and sanitary surveys, carried on "clean-up" and baby welfare campaigns, and has attempted to supplement the activities of social and civic agencies in the improvement of health in their respective communities.

The results of the Company's efforts are highly gratifying. As shown in the attached charts, its mortality experience has consistently improved, and the improvement has been much greater than in the Registration Area of the United States.

Measured in terms of lives, the improvement in Industrial mortality in 1920, over 1911, means a saving of 38,000 lives; measured in terms of dollars and cents, it means a saving of \$7,530,000 in death claims.

The Registration Area mortality record for 1920 is not available. The improvement of the Company's mortality in 1919 over 1911, in excess of the improvement in the Registration Area for the same years, means a saving of 17,800 lives and \$3,451,000 in death claims.

Good health pays!

A handwritten signature in cursive script, reading "Lee H. Hankof".

Third Vice-President

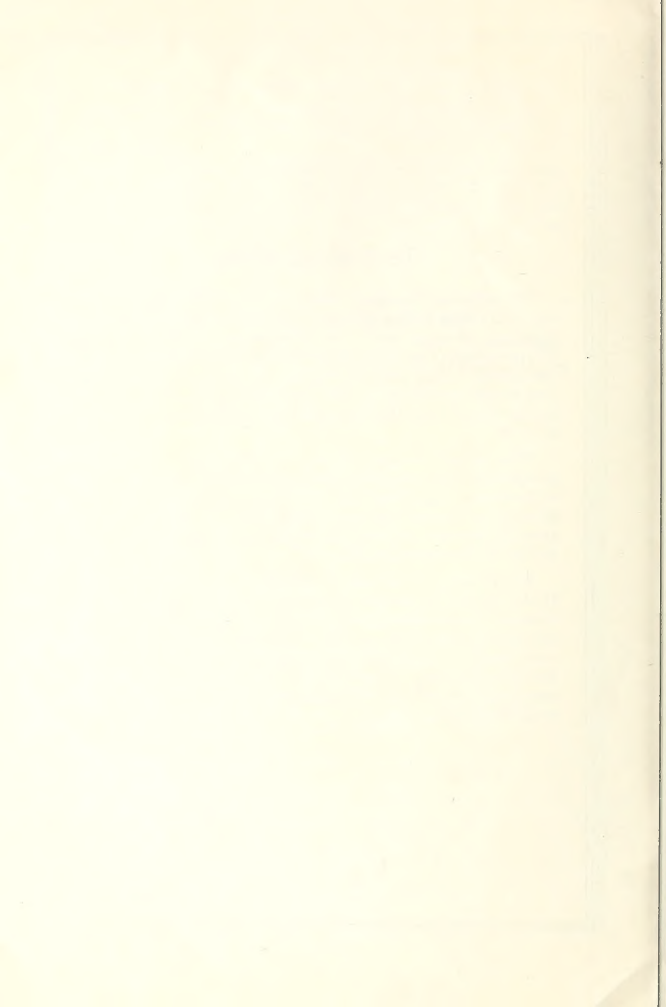
Metropolitan Life Insurance Company

Technical Note.

The following charts show the decline in mortality between 1911 and 1919 among Industrial policy-holders of the Metropolitan Life Insurance Company and in the United States Registration Area. The percentage of decline between these two years has been in every case greater among policy-holders than in the general population. The decline for 1920 in the Metropolitan experience is also shown. Similar data for the United States Registration Area are not yet available.

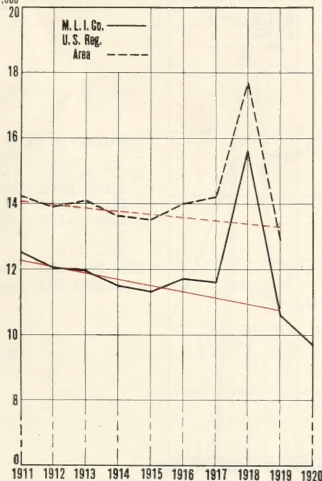
This method of comparing the mortality rates of these two groups takes into consideration the figures for the two extreme years of the decade only. These rates of single calendar years are subject, however, to chance and other variations. The decline between them is, therefore, not the best indication of what has happened during the intervening period.

To overcome this difficulty, straight trend lines have been added to the charts. These lines are shown in red on the graphs and indicate the general tendency of the death rate in each group throughout the ten-year period. They show strikingly the more rapid decline in the death rate among policy-holders than in the general population. In every case, the downward slope of the trend lines is steeper for the insured group than for the population of the Registration Area.



All Causes of Death

Death Rate
per
1,000



Death rate per 1,000

Year	M.L.I.Co.	U.S.Reg. Area
1911	12.53	14.18
1919	10.63	12.88
1920	9.68	---

Percent.
decline:

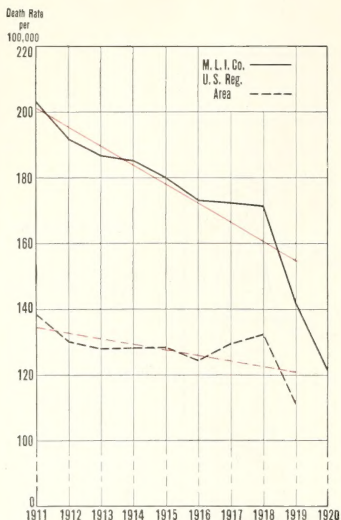
1919-1911	15.2	9.2
1920-1911	22.7	---

In trending these death rates the year 1918 has been omitted. This was done to eliminate the effect of the influenza epidemic. With the year 1918 included, there would have been an apparent upward trend for the decade in both experiences.

*38,000 fewer deaths during 1920 than if 1911
mortality rate had prevailed.*

The downward tendency in the mortality among Metropolitan Industrial policyholders is nearly twice that of the population of the United States Registration Area.

Tuberculosis of the Lungs

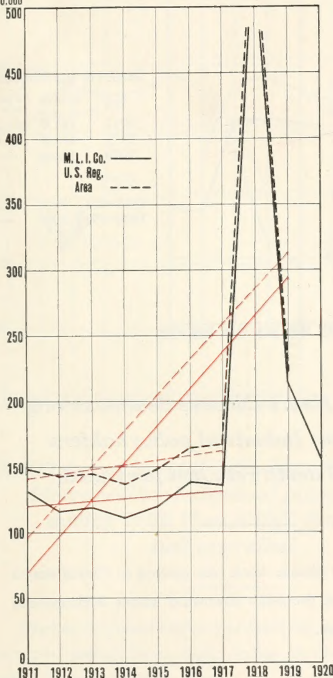


A saving of 11,000 lives in 1920 by decline in death rate since 1911.

Downward tendency of death rate from tuberculosis of the lungs among Metropolitan Industrial policyholders three times as great as in the population of the United States Registration Area. Should rate of decline continue, tuberculosis death rates of Metropolitan Industrial policyholders and of United States Registration Area will coincide in 1927.

Influenza and Pneumonia

Death Rate
per
100,000



Death rate per 100,000

Year	M.L.I. Co.	U.S. Reg. Area
1911	131.2	149.6
1917	135.4	167.2
1918	542.2	561.2
1919	214.1	222.3
1920	156.2	---

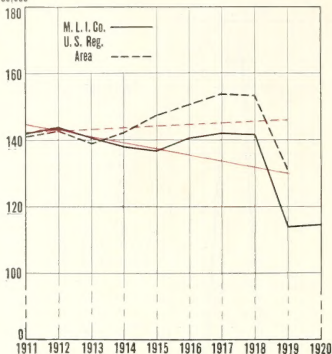
Percent
increase

1919-1911	63.2	48.6
1920-1911	19.1	---

Between 1911 and 1917, a gradually rising death rate from influenza and pneumonia combined; slightly greater upward tendency in population of United States Registration Area than among Metropolitan Industrial policyholders.

Organic Diseases of the Heart

Death Rate
per
100,000



Death rate per 100,000

Year	M. L. I. Co.	U. S. Reg. Area
1911	141.8	141.1
1919	113.9	131.0
1920	114.6	--

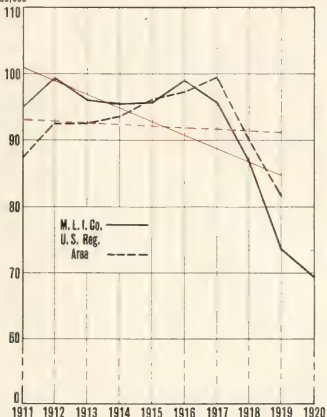
Percent, decline:		
1919-1911	19.7	7.2
1920-1911	19.2	--

3,600 fewer Heart Disease deaths among Metropolitan Industrial policyholders than if 1911 death rate had prevailed.

Tendency of heart disease death rate upward in United States Registration Area, but decidedly downward among Metropolitan Industrial policyholders.

Bright's Disease

Death Rate
per
100,000



Death rate per 100,000

Year	M. L. I. Co.	U. S. Reg. Area
1911	95.0	87.6
1919	73.5	81.6
1920	69.4	—

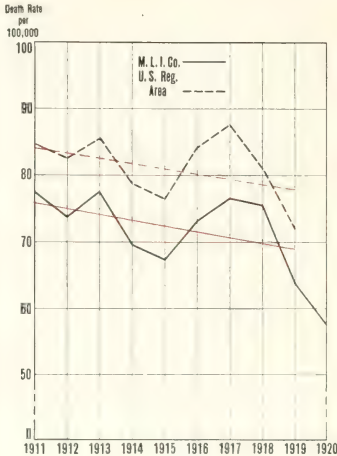
Percent.
decline:

1919-1911	22.6	6.8
1920-1911	26.9	—

3,400 fewer Bright's Disease deaths among Metropolitan Industrial policyholders during 1920 than if 1911 death rate had prevailed.

Marked downward tendency of death rate among Metropolitan Industrial policyholders; slight decline of rate in population of United States Registration Area.

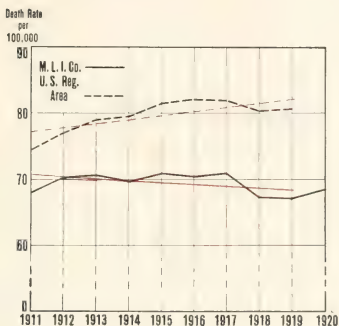
Accidents



2,600 fewer fatal accidents among Metropolitan Industrial policyholders than if 1911 death rate had prevailed.

A slightly greater downward trend among Metropolitan Industrial policyholders than in population of United States Registration Area.

Cancer



Death rate per 100,000

Year	M.L.I.Co.	U.S.Reg. Area
1911	68.0	74.4
1919	67.0	80.5
1920	68.3	---

Percent,
decline:

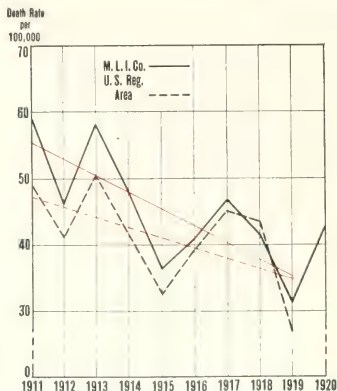
1919-1911	1.5	8.2*
1920-1911	.4*	---

*Increase

Slightly declining death rate among Metropolitan Industrial policyholders. A rising cancer death rate in population of United States Registration Area.

Four Communicable Diseases of Children

(Measles, Scarlet fever, Whooping cough, Diphtheria)



Death rate per 100,000

Year	M. I. Co.	U. S. Reg. Area
1911	58.9	49.0
1919	31.5	26.9
1920	42.3	---

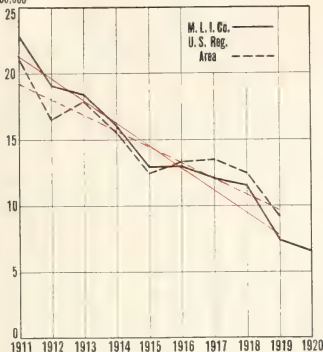
Percent decline:		
1919-1911	46.5	45.1
1920-1911	28.2	---

*2,200 fewer deaths of wage earners' children
during 1920 than if the 1911 death rate
had prevailed.*

Downward tendency of death rate three-fifths greater among Metropolitan Industrial policyholders than in population of United States Registration Area.

Typhoid Fever

Death Rate
per
100,000



Death rate per 100,000

Year	M. L. I. Co.	U. S. Reg. Area
1911	22.8	21.0
1919	7.3	9.2
1920	6.5	---

Percent decline:		
1919-1911	68.0	56.2
1920-1911	71.5	---

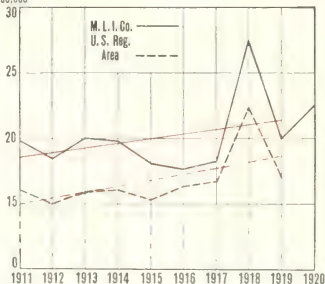
*Typhoid fever is a vanishing cause of death.
2,200 fewer deaths among Metropolitan
Industrial policyholders than if 1911
death rate had prevailed.*

Downward tendency of typhoid fever death rate among Metropolitan Industrial policyholders one-half greater than in population of United States Registration Area.

All Diseases and Conditions of the Puerperal State

Death Rate
per
100,000

Puerperal State—Total



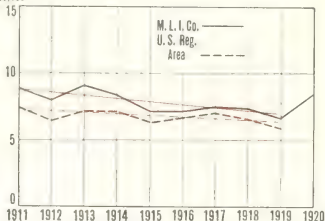
Death rate per 100,000

Year	M.L.I. Co.	U.S. Reg. Area
1911	19.8	16.0
1919	20.0	17.0
1920	22.5	---
Trend:		
1919-1911	1.0	6.3
1920-1911	13.6	---

Prior to influenza epidemics of 1918-1920, a declining death rate among policyholders; a rising death rate in United States Registration Area.

Death Rate
per
100,000

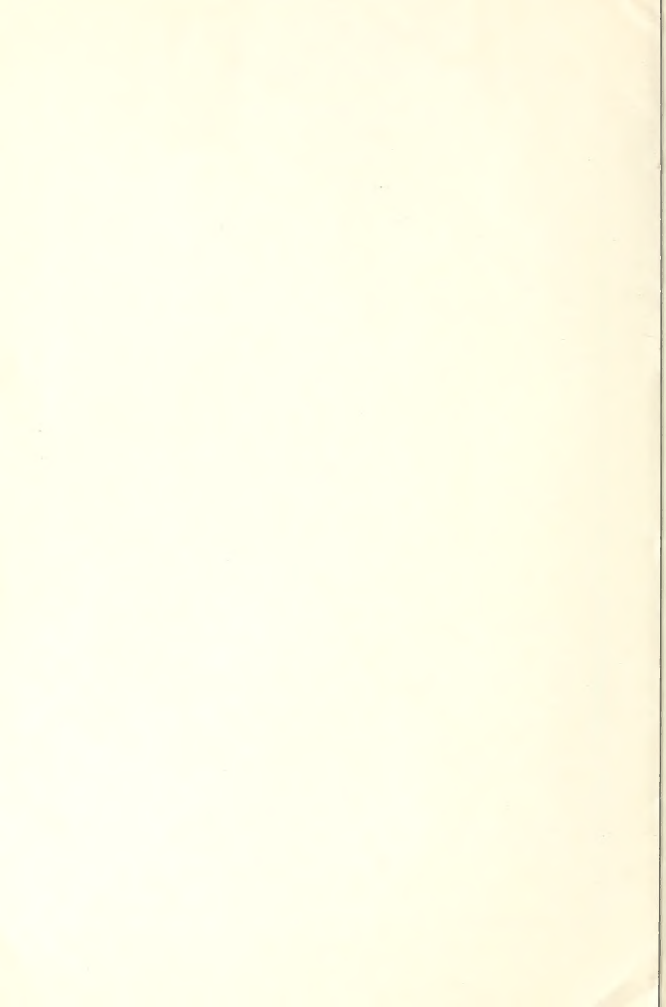
Puerperal Septicemia



Death rate per 100,000

Year	M.L.I. Co.	U.S. Reg. Area
1911	8.8	7.4
1919	6.7	5.8
1920	8.4	---
Trend:		
1919-1911	23.9	21.6
1920-1911	4.5	---

Downward tendency of puerperal sepsis mortality among Metropolitan Industrial policyholders about twice that in population of United States Registration Area.



Longevity
Insurance
Mortality

